

learn new things every day, and every day he learns that he is in control and that he can perform difficult tasks. The laborer is forced to repeat the same exhausting motions, and what he learns is mostly about his own helplessness.

Because work is so universal, yet so varied, it makes a tremendous difference to one's overall contentment whether what one does for a living is enjoyable or not. Thomas Carlyle was not far wrong when he wrote, "Blessed is he who has found his work; let him ask no other blessedness." Sigmund Freud amplified somewhat on this simple advice. When asked for his recipe for happiness, he gave a very short but sensible answer: "Work and love." It is true that if one finds flow in work, and in relations with other people, one is well on the way toward improving the quality of life as a whole. In this chapter we shall explore how jobs can provide flow, and in the following one we shall take up Freud's other main theme—enjoying the company of others.

## AUTOTELIC WORKERS

As punishment for his ambition, Adam was sentenced by the Lord to work the earth with the sweat of his brow. The passage of Genesis (3:17) that relates this event reflects the way most cultures, and especially those that have reached the complexity of "civilization," conceive of work—as a curse to be avoided at all costs. It is true that, because of the inefficient way the universe operates, it requires a lot of energy to realize our basic needs and aspirations. As long as we didn't care how much we ate, whether or not we lived in solid and well-decorated homes, or whether we could afford the latest fruits of technology, the necessity of working would rest lightly on our shoulders, as it does for the nomads of the Kalahari desert. But the more psychic energy we invest in material goals, and the more improbable the goals grow to be, the more difficult it becomes to make them come true. Then we need increasingly high inputs of labor, mental and physical, as well as inputs of natural resources, to satisfy escalating expectations. For much of history, the great majority of people who lived at the periphery of "civilized" societies had to give up any hope of enjoying life in order to make the dreams of the few who had found a way of exploiting them come true. The achievements that set civilized nations apart from the more primitive—such as the Pyramids, the Great Wall of China, the Taj Mahal, and the temples, palaces, and dams of antiquity—were usually built with the energy of slaves forced to realize their rulers' ambitions. Not surprisingly, work acquired a rather poor reputation.

With all due respect to the Bible, however, it does not seem to be true that work necessarily needs to be unpleasant. It may always have to be hard, or at least harder than doing nothing at all. But there is ample evidence that work can be enjoyable, and that indeed, it is often the most enjoyable part of life.

Occasionally cultures evolve in such a way as to make everyday productive chores as close to flow activities as possible. There are groups in which both work and family life are challenging yet harmoniously integrated. In the high mountain valleys of Europe, in Alpine villages spared by the Industrial Revolution, communities of this type still exist. Curious to see how work is experienced in a "traditional" setting representative of farming life-styles that were prevalent everywhere up to a few generations ago, a team of Italian psychologists led by Professor Fausto Massimini and Dr. Antonella Delle Fave recently interviewed some of their inhabitants, and have generously shared their exhaustive transcripts.

The most striking feature of such places is that those who live there can seldom distinguish work from free time. It could be said that they work sixteen hours a day each day, but then it could also be argued that they never work. One of the inhabitants, Serafina Vinon, a seventy-six-year-old woman from the tiny hamlet of Pont Trentaz, in the Val d'Aosta region of the Italian Alps, still gets up at five in the morning to milk her cows. Afterward she cooks a huge breakfast, cleans the house, and, depending on the weather and time of year, either takes the herd to the meadows just below the glaciers, tends the orchard, or cards some wool. In summer she spends weeks on the high pastures cutting hay, and then carries huge bales of it on her head the several miles down to the barn. She could reach the barn in half the time if she took a direct route; but she prefers following invisible winding trails to save the slopes from erosion. In the evening she may read, or tell stories to her great-grandchildren, or play the accordion for one of the parties of friends and relatives that assemble at her house a few times a week.

Serafina knows every tree, every boulder, every feature of the mountains as if they were old friends. Family legends going back many centuries are linked to the landscape: On this old stone bridge, when the plague of 1473 had exhausted itself, one night the last surviving woman of Serafina's village, with a torch in her hand, met the last surviving man of the village further down the valley. They helped each other, got married, and became the ancestors of her family. It was in that field of raspberries that her grandmother was lost when she was a little girl. On this rock, standing with a pitchfork in his hand, the Devil

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threatened Uncle Andrew during the freak snowstorm of '24.

When Serafina was asked what she enjoys doing most in life, she had no trouble answering: milking the cows, taking them to the pasture, pruning the orchard, carding wool . . . in effect, what she enjoys most is what she has been doing for a living all along. In her own words: "It gives me a great satisfaction. To be outdoors, to talk with people, to be with my animals . . . I talk to everybody—plants, birds, flowers, and animals. Everything in nature keeps you company; you see nature progress every day. You feel clean and happy: too bad that you get tired and have to go home. . . . even when you have to work a lot it is very beautiful."

When she was asked what she would do if she had all the time and money in the world, Serafina laughed—and repeated the same list of activities: she would milk the cows, take them to pasture, tend the orchard, card wool. It is not that Serafina is ignorant of the alternatives offered by urban life: she watches television occasionally and reads newsmagazines, and many of her younger relatives live in large cities and have comfortable life-styles, with cars, appliances, and exotic vacations. But their more fashionable and modern way of life does not attract Serafina; she is perfectly content and serene with the role she plays in the universe.

Ten of the oldest residents of Pont Trentaz, ranging from sixty-six to eighty-two years of age, were interviewed; all of them gave responses similar to Serafina's. None of them drew a sharp distinction between work and free time, all mentioned work as the major source of optimal experiences, and none would want to work less if given a chance.

Most of their children, who were also interviewed, expressed the same attitude toward life. However, among the grandchildren (aged between twenty and thirty-three years), more typical attitudes toward work prevailed: given a chance they would have worked less, and spent more time instead in leisure—reading, sports, traveling, seeing the latest shows. Partly this difference between the generations is a matter of age; young people are usually less contented with their lot, more eager for change, and more intolerant of the constraints of routine. But in this case the divergence also reflects the erosion of a traditional way of life, in which work was meaningfully related to people's identities and to their ultimate goals. Some of the young people of Pont Trentaz might in their old age come to feel about their work as Serafina does; probably the majority will not. Instead, they will keep widening the gap between jobs that are necessary but unpleasant, and leisure pursuits that are enjoyable but have little complexity.

Life in this Alpine village has never been easy. To survive from day to day each person had to master a very broad range of difficult challenges ranging from plain hard work, to skillful crafts, to the preservation and elaboration of a distinctive language, of songs, of artworks, of complex traditions. Yet somehow the culture has evolved in such a way that the people living in it find these tasks enjoyable. Instead of feeling oppressed by the necessity to work hard, they share the opinion of Giuliana B., a seventy-four-year-old lady: "I am free, free in my work, because I do whatever I want. If I don't do something today I will do it tomorrow. I don't have a boss, I am the boss of my own life. I have kept my freedom and I have fought for my freedom."

Certainly, not all preindustrial cultures were this idyllic. In many hunting or farming societies life was harsh, brutish, and short. In fact, some of the Alpine communities not far from Pont Trentaz were described by foreign travelers of the last century as riddled with hunger, disease, and ignorance. To perfect a life-style capable of balancing harmoniously human goals with the resources of the environment is as rare a feat as building one of the great cathedrals that fill visitors with awe. We can't generalize from one successful example to all preindustrial cultures. But by the same token even one exception is sufficient to disprove the notion that work must always be less enjoyable than freely chosen leisure.

But what about the case of an urban laborer, whose work is not so clearly tied to his subsistence? Serafina's attitude, as it happens, is not unique to traditional farming villages. We can occasionally find it around us in the midst of the turmoils of the industrial age. A good example is the case of Joe Kramer, a man we interviewed in one of our early studies of the flow experience. Joe was in his early sixties, a welder in a South Chicago plant where railroad cars are assembled. About two hundred people worked with Joe in three huge, dark, hangarlike structures where steel plates weighing several tons move around suspended from overhead tracks, and are welded amid showers of sparks to the wheelbases of freight cars. In summer it is an oven, in winter the icy winds of the prairie howl through. The clanging of metal is always so intense that one must shout into a person's ear to make oneself understood.

Joe came to the United States when he was five years old, and he left school after fourth grade. He had been working at this plant for over thirty years, but never wanted to become a foreman. He declined several promotions, claiming that he liked being a simple welder, and felt uncomfortable being anyone's boss. Although he stood on the lowest rung

of the hierarchy in the plant, everyone knew Joe, and everyone agreed that he was the most important person in the entire factory. The manager stated that if he had five more people like Joe, his plant would be the most efficient in the business. His fellow workers said that without Joe they might as well shut down the shop right now.

The reason for his fame was simple: Joe had apparently mastered every phase of the plant's operation, and he was now able to take anyone's place if the necessity arose. Moreover, he could fix any broken-down piece of machinery, ranging from huge mechanical cranes to tiny electronic monitors. But what astounded people most was that Joe not only could perform these tasks, but actually enjoyed it when he was called upon to do them. When asked how he had learned to deal with complex engines and instruments without having had any formal training, Joe gave a very disarming answer. Since childhood he had been fascinated with machinery of every kind. He was especially drawn to anything that wasn't working properly: "Like when my mother's toaster went on the fritz, I asked myself: 'If I were that toaster and I didn't work, what would be wrong with me?'" Then he disassembled the toaster, found the defect, and fixed it. Ever since, he has used this method of empathic identification to learn about and restore increasingly complex mechanical systems. And the fascination of discovery has never left him; now close to retirement, Joe still enjoys work every day.

Joe has never been a workaholic, completely dependent on the challenges of the factory to feel good about himself. What he did at home was perhaps even more remarkable than his transformation of a mindless, routine job into a complex, flow-producing activity. Joe and his wife live in a modest bungalow on the outskirts of the city. Over the years they bought up the two vacant lots on either side of their house. On these lots Joe built an intricate rock garden, with terraces, paths, and several hundred flowers and shrubs. While he was installing underground sprinklers, Joe had an idea: What if he had them make rainbows? He looked for sprinkler heads that would produce a fine enough mist for this purpose, but none satisfied him; so he designed one himself, and built it on his basement lathe. Now after work he could sit on the back porch, and by touching one switch he could activate a dozen sprays that turned into as many small rainbows.

But there was one problem with Joe's little Garden of Eden. Since he worked most days, by the time he got home the sun was usually too far down the horizon to help paint the water with strong colors. So Joe went back to the drawing board, and came back with an admirable solution. He found floodlights that contained enough of the sun's spec-

trum to form rainbows, and installed them inconspicuously around the sprinklers. Now he was really ready. Even in the middle of the night, just by touching two switches, he could surround his house with fans of water, light, and color.

Joe is a rare example of what it means to have an "autotelic personality," or the ability to create flow experiences even in the most barren environment—an almost inhumane workplace, a weed-infested urban neighborhood. In the entire railroad plant, Joe appeared to be the only man who had the vision to perceive challenging opportunities for action. The rest of the welders we interviewed regarded their jobs as burdens to be escaped as promptly as possible, and each evening as soon as work stopped they fanned out for the saloons that were strategically placed on every third corner of the grid of streets surrounding the factory, there to forget the dullness of the day with beer and camaraderie. Then home for more beer in front of the TV, a brief skirmish with the wife, and the day—in all respects similar to each previous one—was over.

One might argue here that endorsing Joe's life-style over that of his fellow workers is reprehensibly "elitist." After all, the guys in the saloon are having a good time, and who is to say that grubbing away in the backyard making rainbows is a better way to spend one's time? By the tenets of cultural relativism the criticism would be justifiable, of course. But when one understands that enjoyment depends on increasing complexity, it is no longer possible to take such radical relativism seriously. The quality of experience of people who play with and transform the opportunities in their surroundings, as Joe did, is clearly more developed as well as more enjoyable than that of people who resign themselves to live within the constraints of the barren reality they feel they cannot alter.

The view that work undertaken as a flow activity is the best way to fulfill human potentialities has been proposed often enough in the past, by various religious and philosophical systems. To people imbued with the Christian worldview of the Middle Ages it made sense to say that peeling potatoes was just as important as building a cathedral, provided they were both done for the greater glory of God. For Karl Marx, men and women constructed their being through productive activities; there is no "human nature," he held, except that which we create through work. Work not only transforms the environment by building bridges across rivers and cultivating barren plains; it also transforms the worker from an animal guided by instincts into a conscious, goal-directed, skillful person.



One of the most interesting examples of how the phenomenon of flow appeared to thinkers of earlier times is the concept of *Yu* referred to about 2,300 years ago in the writings of the Taoist scholar Chuang Tzu. *Yu* is a synonym for the right way of following the path, or *Tao*: it has been translated into English as "wandering"; as "walking without touching the ground"; or as "swimming," "flying," and "flowing." Chuang Tzu believed that to *Yu* was the proper way to live—without concern for external rewards, spontaneously, with total commitment—in short, as a total autotelic experience.

As an example of how to live by *Yu*—or how to flow—Chuang Tzu presents, in the Inner Chapters of the work which has come down to us bearing his name, a parable of a humble worker. This character is Ting, a cook whose task was to butcher the meat at the court of Lord Hui of Wei. Schoolchildren in Hong Kong and Taiwan still have to memorize Chuang Tzu's description: "Ting was cutting up an ox for Lord Wen-hui. At every touch of his hand, every heave of his shoulder, every move of his feet, every thrust of his knee—zip! zoop! He slithered the knife along with a zing, and all was in perfect rhythm, as though he were performing the dance of the Mulberry Grove or keeping time to the Ching-shou music."

Lord Wen-hui was fascinated by how much flow (or *Yu*) his cook found in his work, and so he complimented Ting on his great skill. But Ting denied that it was a matter of skill: "What I care about is the Way, which goes beyond skill." Then he described how he had achieved his superb performance: a sort of mystical, intuitive understanding of the anatomy of the ox, which allowed him to slice it to pieces with what appeared to be automatic ease: "Perception and understanding have come to a stop and spirit moves where it wants."

Ting's explanation may seem to imply that *Yu* and flow are the result of different kinds of processes. In fact, some critics have emphasized the differences: while flow is the result of a conscious attempt to master challenges, *Yu* occurs when the individual gives up conscious mastery. In this sense they see flow as an example of the "Western" search for optimal experience, which according to them is based on changing objective conditions (e.g., by confronting challenges with skills), whereas *Yu* is an example of the "Eastern" approach, which disregards objective conditions entirely in favor of spiritual playfulness and the transcendence of actuality.

But how is a person to achieve this transcendental experience and spiritual playfulness? In the same parable, Chuang Tzu offers a valuable

insight to answer this question, an insight that has given rise to diametrically opposite interpretations. In Watson's translation, it reads as follows: "However, whenever I come to a complicated place, I size up the difficulties, tell myself to watch out and be careful, keep my eyes on what I'm doing, work very slowly, and move my knife with the greatest of subtlety, until—flop! the whole thing comes apart like a clod of earth crumbling to the ground. I stand there holding the knife and look all around me, completely satisfied and reluctant to move on, and then I wipe off the knife and put it away."

Now some earlier scholars have taken this passage to refer to the working methods of a mediocre carver who does not know how to *Yu*. More recent ones such as Watson and Graham believe that it refers to Ting's own working methods. Based on my knowledge of the flow experience, I believe the latter reading must be the correct one. It demonstrates, even after all the obvious levels of skill and craft (*chi*) have been mastered, the *Yu* still depends on the discovery of new challenges (the "complicated place" or "difficulties" in the above quotation), and on the development of new skills ("watch out and be careful, keep my eyes on what I'm doing . . . move my knife with the greatest of subtlety").

In other words, the mystical heights of the *Yu* are not attained by some superhuman quantum jump, but simply by the gradual focusing of attention on the opportunities for action in one's environment, which results in a perfection of skills that with time becomes so thoroughly automatic as to seem spontaneous and otherworldly. The performances of a great violinist or a great mathematician seem equally uncanny, even though they can be explained by the incremental honing of challenges and skills. If my interpretation is true, in the flow experience (or *Yu*) East and West meet: in both cultures ecstasy arises from the same sources. Lord Wen-hui's cook is an excellent example of how one can find flow in the most unlikely places, in the most humble jobs of daily life. And it is also remarkable that over twenty-three centuries ago the dynamics of this experience were already so well known.

The old woman who farms in the Alps, the welder in South Chicago, and the mythical cook from ancient China have this in common: their work is hard and unglamorous, and most people would find it boring, repetitive, and meaningless. Yet these individuals transformed the jobs they had to do into complex activities. They did this by recognizing opportunities for action where others did not, by developing skills, by focusing on the activity at hand, and allowing themselves to be lost in the interaction so that their selves could emerge stronger

afterward. Thus transformed, work becomes enjoyable, and as the result of a personal investment of psychic energy, it feels as if it were freely chosen, as well.

## AUTOTELIC JOBS

Serafina, Joe, and Ting are examples of people who have developed an autotelic personality. Despite the severe limitations of their environment they were able to change constraints into opportunities for expressing their freedom and creativity. Their method represents one way to enjoy one's job while making it richer. The other is to change the job itself, until its conditions are more conducive to flow, even for people who lack autotelic personalities. The more a job inherently resembles a game—with variety, appropriate and flexible challenges, clear goals, and immediate feedback—the more enjoyable it will be regardless of the worker's level of development.

Hunting, for instance, is a good example of "work" that by its very nature had all the characteristics of flow. For hundreds of thousands of years chasing down game was the main productive activity in which humans were involved. Yet hunting has proven to be so enjoyable that many people are still doing it as a hobby, after all practical need for it has disappeared. The same is true of fishing. The pastoral mode of existence also has some of the freedom and flowlike structure of earliest "work." Many contemporary young Navajos in Arizona claim that following their sheep on horseback over the mesas is the most enjoyable thing they ever do. Compared to hunting or herding, farming is more difficult to enjoy. It is a more settled, more repetitive activity, and the results take much longer to appear. The seeds planted in spring need months to bear fruit. To enjoy agriculture one must play within a much longer time frame than in hunting: while the hunter may choose his quarry and method of attack several times each day, the farmer decides what crops to plant, where, and in what quantity only a few times each year. In order to succeed, the farmer must make lengthy preparations, and endure chancy periods of waiting helplessly for the weather to cooperate. It is not surprising to learn that populations of nomads or hunters, when forced to become farmers, appear to have died out rather than submitting themselves to that ostensibly boring existence. Yet many farmers also eventually learned to enjoy the more subtle opportunities of their occupation.

The crafts and cottage industries that before the eighteenth century occupied most of the time left free from farming were reasonably

well designed in terms of providing flow. English weavers, for example, had their looms at home, and worked with their entire family according to self-imposed schedules. They set their own goals for production, and modified them according to what they thought they could accomplish. If the weather was good, they quit so they could work in the orchard or the vegetable garden. When they felt like it they would sing a few ballads, and when a piece of cloth was finished they all celebrated with a wee drink.

This arrangement still functions in some parts of the world that have been able to maintain a more humane pace of production, despite all the benefits of modernization. For instance, Professor Massimini and his team have interviewed weavers in the province of Biella, in northern Italy, whose pattern of working resembles that of the fabled English weavers of over two centuries ago. Each of these families owns two to ten mechanical looms that can be supervised by a single person. The father may watch the looms early in the morning, then call in his son to take over while he goes looking for mushrooms in the forest or stops by the creek to fish for trout. The son runs the machines until he gets bored, at which point the mother takes over.

In their interviews, every member of the families listed weaving as the most enjoyable activity they did—more than traveling, more than going to discos, more than fishing, and certainly more than watching TV. The reason that working was so much fun is that it was continually challenging. Family members designed their own patterns, and when they had had enough of one kind they would switch to another. Each family decided what type of cloth to weave, where to buy the materials, how much to produce, and where to sell it. Some families had customers as far away as Japan and Australia. Family members were always traveling to manufacturing centers to keep abreast of new technical developments, or to buy necessary equipment as cheaply as possible.

But throughout most of the Western world such cozy arrangements conducive to flow were brutally disrupted by the invention of the first power looms, and the centralized factory system they spawned. By the middle of the eighteenth century family crafts in England were generally unable to compete with mass production. Families were broken up, workers had to leave their cottages and move en masse into ugly and unwholesome plants, rigid schedules lasting from dawn to dusk were enforced. Children as young as seven years of age had to work themselves to exhaustion among indifferent or exploitive strangers. If the enjoyment of work had any credibility before, it was effectively destroyed in that first frenzy of industrialization.